

## Claims

1. A wireless router supporting communications between a wireless client and a wireline network comprising:

5 at least one computer operating as a server based upon a program system comprising program steps residing in memory accessibly coupled with said computer;

10 said wireline network coupled to said server via a wireline communications port;

15 a wireless interface coupled to said server by a member of a wireless coupling collection and said wireless interface possessing a wireless transceiver;

wherein said wireless coupling collection is comprised of a bus coupling between said wireless interface and said server, and an interface coupling between said wireless interface and said server;

wherein said bus coupling includes at least a member of the bus coupling collection comprising a PCI bus coupling, a Compact PCI bus coupling, and an ISA bus coupling;

20 wherein said interface coupling includes at least one member of the interface coupling collection comprising a USB interface, an Ethernet interface, a fiber optic interface, an ATM interface, a STM interface, and a modem interface;

25 wherein said Ethernet interface includes at least a member of the collection comprising a 1-Base T Ethernet interface, a 10-Base T Ethernet interface, a 100-Base T Ethernet interface, and a gigabit Ethernet interface;

wherein said fiber optic interface includes at least a member of the collection comprising a fiber channel compliant interface, an interface to a

Time Division Multiplexing fiber optic network, an interface to a photonic switch fiber optic network, an interface to an optical subcarrier multiplexed fiber optic network and an interface to Wavelength Division Mutliplexed fiber optic network;

5 wherein said program system is comprised of the program steps of:  
coupling said wireless interface to said wireline network via said wireline communications port as a server device with a network service address;

10 enabling address translation on said server to include said server device with said network service address;

adding a network route for said wireless interface on said server for said server device with said network service address; and

15 making said wireless interface available to at least one wireless client communicating via said wireless coupling as a gateway to communicate on said wireline network;

a wireless client communicating via said wireless coupling based upon a login protocol accessing a client authorization list to create an authorized client; and

20 said authorized client communicating via said wireless coupling using said network route to communicate with said wireline network via said wireline communications port;

wherein the program step making said wireless interface available to said wireless client is further comprised of the program steps of:

25 said wireless transceiver receiving a first message including a destination from said wireless client to create a first received message including said received destination at said wireless transceiver;

5                   said wireless transceiver transmitting a second wireless destined message to said wireless client;

10                  transmitting said first wireline network destined message including said wireline address via said wireline communications port; and

15                  receiving a second wireline network message including a destination containing said network service address to create a second wireline network message including said destination containing said network service address to said server device;

20                  wherein the program step enabling address translation on said server is further comprised of the program steps of:

25                  masquerading said first received message including said received destination to create a first wireline destined message including a first wireline address at said server device; and

30                  demasquerading a second wireline network message including said destination address containing said network service address to create said second wireline originated message including said destination address containing said network service address;

35                  wherein the program step adding said network route for said wireless interface on said server is further comprised of the program steps of:

40                  routing said first wireline destined message at said wireless interface based upon said network route for said server device with said network service address to create a first wireline network destined message including said first wireline address; and

45                  routing a second wireline originated message including a destination containing said network service address to said server device based upon

said network route for said server device with said network service address to  
create said second wireless destined message to said wireless client;

wherein said wireless transceiver further supports at least the IEEE  
802.11b messaging protocol standard in communicating with said wireless  
client.

2. The wireless router of Claim 1,

wherein said wireless interface further supports at least the IEEE  
802.11a messaging protocol standard in communicating with said wireless  
client.

3. The wireless router of Claim 1,

wherein said wireless interface further supports at least a layer three  
messaging protocol in communicating with said wireless client including said  
server supporting layer three datagrams.

4. The wireless router of Claim 3,

wherein said wireless interface further supports a messaging protocol  
compatible with WAP in communicating with said wireless client.

5. The wireless router of Claim 1,

wherein the program step enabling address translation on said server  
is further comprised of at least one member of the collection comprising the  
program steps of:

enabling address translation on said server to include said server device with said network service address by use of a static addressing scheme on said wireline network;

enabling address translation on said server to include said server device with said network service address by use of a dynamic addressing scheme on said wireline network;

translating said wireless interface address to an external wireline address;

presenting said wireless interface address as said external wireline address;

registering said wireless interface address as said external wireline address; and

registering said wireless interface address as said external wireline address to a dynamic DNS service.

15. 6. A method of providing communication between a wireless transceiver and a wireline network, wherein a wireless interface possessing a wireline communications port and said wireless transceiver is coupled to a server by a member of a wireless coupling collection, wherein said server is further coupled to said wireline network comprising the steps of:

coupling said wireless interface to said wireline network via said wireline communications port as a server device with a network service address;

enabling address translation on said server to include said server device with said network service address;

adding a network route for said wireless interface on said server for said server device with said network service address; and

making said wireless interface available to at least one wireless client communicating via said wireless coupling as a gateway to communicate on  
5 said wireline network; and

a wireless client communicating via said wireless coupling based upon a login protocol accessing a client authorization list to create an authorized client; and

10 said authorized client communicating via said wireless coupling using said network route to communicate with said wireline network; and

wherein the step making said wireless interface available to said wireless client is further comprised of the steps of:

15 said wireless transceiver receiving a first message including a destination from said wireless client to create a first received message including said received destination at said wireless transceiver;

said wireless transceiver transmitting a second wireless destined message to said wireless client;

transmitting said first wireline network destined message including said wireline address via said wireline communications port;

20 and

receiving a second wireline network message including a destination containing said network service address to create a second wireline network message including said destination containing said network service address to said server device;

25 wherein the step enabling address translation on said server is further comprised of the steps of:

masquerading said first received message including said received destination to create a first wireline destined message including a first wireline address at said server device; and

5 demasquerading a second wireline network message including said destination address containing said network service address to create said second wireline originated message including said destination address containing said network service address; wherein the step adding said network route for said wireless interface on said server is further comprised of the steps of:

10 routing said first wireline destined message at said wireless interface based upon said network route for said server device with said network service address to create a first wireline network destined message including said first wireline address; and

15 routing a second wireline originated message including a destination containing said network service address to said server device based upon said network route for said server device with said network service address to create said second wireless destined message to said wireless client;

wherein said wireless transceiver further supports at least the IEEE  
20 802.11b messaging protocol standard in communicating with said wireless client;

wherein said wireless coupling collection is comprised of a bus coupling between said wireless interface and said server, and an interface coupling between said wireless interface and said server;

wherein said bus coupling includes at least a member of the bus coupling collection comprising a PCI bus coupling, a Compact PCI bus coupling, and an ISA bus coupling;

5       wherein said interface coupling includes at least one member of the interface coupling collection comprising a USB interface, an Ethernet interface, a fiber optic interface, an ATM interface, a STM interface, and a modem interface;

10      wherein said Ethernet interface includes at least a member of the collection comprising a 1-Base T Ethernet interface, a 11-Base T Ethernet interface, a 110 Base T Ethernet interface, and a gigabit Ethernet interface; and

15      wherein said fiber optic interface includes at least a member of the collection comprising a fiber channel compliant interface, an interface to a Time Division Multiplexing fiber optic network, an interface to a photonic switch fiber optic network, an interface to an optical subcarrier multiplexed fiber optic network and an interface to Wavelength Division Mutliplexed fiber optic network.

7.       The method of Claim 6, wherein said first wireline network destined messages include said wireline address.

8.       The method of Claim 6, wherein said second wireless destined messages are sent to said authorized client.

25      9.      The method of Claim 6,

wherein said wireless transceiver further supports at least the IEEE 802.11a messaging protocol standard in communicating with said wireless client.

5 10. The method of Claim 6,

wherein said wireless transceiver further supports at least a layer three messaging protocol in communicating with said wireless client including said server supporting layer three datagrams.

10 11. The method of Claim 10,

wherein said wireless transceiver further supports a messaging protocol compatible with WAP in communicating with said wireless client.

12. A program system implementing the steps of the method of Claim 6 as  
15 program steps residing in at least one memory accessibly coupled with a computer operating said server;

wherein said memory includes at least one member of the collection comprising

20 a non-volatile memory component accessibly coupled with said computer,

a volatile memory component accessibly coupled with said computer,  
and

25 a removable non-volatile memory component inserted into a memory component reader coupled with said computer forming an accessible coupling of said removable non-volatile memory component with said computer.

13. An upgrade package containing a version of a program system implementing the steps of the method of Claim 6 as program steps to reside in at least one memory accessibly coupled with a computer operating said server.

5

14. The upgrade package of Claim 13,

wherein said upgrade package is accessibly coupled with an upgrade server communicatively accessible to said computer operating said server, said upgrade server providing said upgrade package to said computer.

10

15. The upgrade package of Claim 14,

wherein said upgrade server is operated by a method including the steps of:

establishing communications between said upgrade server and said server; and

transmitting said upgrade package to said server via said communications to provide said upgrade package to said server;

wherein said server is operated by a method including the steps of:

receiving said provided upgrade package from said upgrade server to create a received upgrade package; and

processing said received upgrade package to create said program system.

20  
25  
16. The method of Claim 6,

wherein the step enabling address translation on said server is further comprised of at least one member of the collection comprising the steps of:

enabling address translation on said server to include said server device with said network service address by use of a static addressing scheme on said wireline network;

5 enabling address translation on said server to include said server device with said network service address by use of a dynamic addressing scheme on said wireline network;

translating said wireless interface address to an external wireline address;

10 presenting said wireless interface address as said external wireline address;

registering said wireless interface address as said external wireline address; and

registering said wireless interface address as said external wireline address to a dynamic DNS service.

15 17. A method of providing communication between a wireless transceiver and a wireline network, wherein a wireless interface possessing said wireless transceiver is coupled to a server further coupled via a wireline communications port to said wireline network, comprising the steps of:

20 coupling said wireless interface to said wireline network via said wireline communications port as a server device with a network service address;

enabling address translation on said server to include said server device with said network service address;

25 adding a network route for said wireless interface on said server for said server device with said network service address; and

making said wireless interface available to at least one wireless client communicating via said wireless coupling as a gateway to communicate on said wireline network.

5 18. The method of Claim 17, further comprising the steps of:

a wireless client communicating via said wireless coupling based upon a login protocol accessing a client authorization list to create an authorized client; and

10 said authorized client communicating via said wireless coupling using said network route to communicate with said wireline network.

15 19. The method of Claim 17,

wherein the step making said wireless interface available to said authorized client is further comprised of the steps of:

15 said wireless transceiver receiving a first message including a destination from said wireless client to create a first received message including said received destination at said wireless transceiver;

20 said wireless transceiver transmitting a second wireless destined message to said wireless client;

transmitting said first wireline network destined message including said wireline address via said wireline communications port; and

25 receiving a second wireline network message including a destination containing said network service address to create a second wireline network message including said destination containing said network service address to said server device;

wherein the step enabling address translation on said server is further comprised of the steps of:

5                   masquerading said first received message including said received destination to create a first wireline destined message including a first wireline address at said server device; and

10                  demasquerading a second wireline network message including said destination address containing said network service address to create said second wireline originated message including said destination address containing said network service address;

15                  wherein the step adding said network route for said wireless interface on said server is further comprised of the steps of:

20                  routing said first wireline destined message at said wireless interface based upon said network route for said server device with said network service address to create a first wireline network destined message including said first wireline address; and

25                  routing a second wireline originated message including a destination containing said network service address to said server device based upon said network route for said server device with said network service address to create said second wireless destined message to said wireless client.

20. The method of Claim 17,

25                  wherein said wireless interface supports a message passing communications protocol in communicating with said wireless client.

21. The method of Claim 20,  
wherein said wireless transceiver further supports at least a layer two  
messaging protocol in communicating with said wireless client.

5 22. The method of Claim 21,  
wherein said wireless transceiver further supports at least the IEEE  
802.11b messaging protocol standard in communicating with said wireless  
client.

10 23. The method of Claim 21,  
wherein said wireless transceiver further supports at least the IEEE  
802.11a messaging protocol standard in communicating with said wireless  
client.

15 24. The method of Claim 21,  
wherein said wireless interface further supports at least a layer three  
messaging protocol in communicating with said wireless client including said  
server supporting layer three datagrams.

20 25. The method of Claim 24,  
wherein said wireless transceiver further supports a messaging  
protocol compatible with WAP in communicating with said wireless client.

26. A program system implementing the steps of the method of Claim 17  
as program steps residing in at least one memory accessibly coupled with a  
computer operating said server;

wherein said memory includes at least one member of the collection comprising

a non-volatile memory component accessibly coupled with said computer,

5 a volatile memory component accessibly coupled with said computer, and

a removable non-volatile memory component inserted into a memory component reader coupled with said computer forming an accessible coupling of said removable non-volatile memory component with said computer.

10

27. An upgrade package containing a version of a program system implementing the steps of the method of Claim 17 as program steps to reside in at least one memory accessibly coupled with a computer operating said server.

15

28. The upgrade package of Claim 27,

wherein said upgrade package is accessibly coupled with an upgrade server communicatively accessible to said computer operating said server, said upgrade server providing said upgrade package to said computer.

20

29. The upgrade package of Claim 28,

wherein said upgrade server is operated by a method including the steps of:

25 establishing communications between said upgrade server and said server; and

transmitting said upgrade package to said server via said communications to provide said upgrade package to said server;

wherein said server is operated by a method including the steps of:

receiving said provided upgrade package from said upgrade server to

5 create a received upgrade package; and

processing said received upgrade package to create said program system.

30. The method of Claim 17,

10 wherein the step enabling address translation on said server is further comprised of at least one member of the collection comprising the steps of:

enabling address translation on said server to include said server device with said network service address by use of a static addressing scheme on said wireline network;

15 enabling address translation on said server to include said server device with said network service address by use of a dynamic addressing scheme on said wireline network;

translating said wireless interface address to an external wireline address;

20 presenting said wireless interface address as said external wireline address;

registering said wireless interface address as said external wireline address; and

25 registering said wireless interface address as said external wireline address to a dynamic DNS service.

31. A wireless router supporting communications between a wireless client and a wireline network comprising:

at least one computer operating a server based upon a program system comprising program steps residing in memory accessibly coupled with  
5 said computer;

said wireline network coupled to said server via a wireline communications port;

a wireless interface coupled to said computer by a member of a wireless coupling collection and said wireless interface possessing wireless  
10 transceiver;

wherein said wireless coupling collection is comprised of a bus coupling between said wireless interface and said computer, and an interface coupling between said wireless interface and said computer;

wherein said program system is comprised of the program steps of:

coupling said wireless interface to said wireline network via said  
wireline communications port as a server device with a network service address;

enabling address translation on said server to include said server device with said network service address;

20 adding a network route for said wireless interface on said server for said server device with said network service address; and

making said wireless interface available to at least one wireless client communicating via said wireless coupling as a gateway to communicate on said wireline network.

25

32. The wireless router of Claim 31,

wherein said program system further comprising the program steps of:  
a wireless client communicating via said wireless coupling based upon  
a login protocol accessing a client authorization list to create an authorized  
client; and  
5           said authorized client communicating via said wireless coupling using  
said network route to communicate with said wireline network.

33. The wireless router of Claim 31,

10           wherein the program step making said wireless interface available to  
said wireless client is further comprised of the program steps of:

15           said wireless transceiver receiving a first message including a  
destination from said wireless client to create a first received message  
including said received destination at said wireless transceiver;

20           said wireless transceiver transmitting a second wireless  
destined message to said wireless client;

transmitting said first wireline network destined message  
including said wireline address via said wireline communications port;  
and

25           receiving a second wireline network message including a  
destination containing said network service address to create a second  
wireline network message including said destination containing said  
network service address to said server device;

wherein the program step enabling address translation on said server  
is further comprised of the program steps of:

masquerading said first received message including said received destination to create a first wireline destined message including a first wireline address at said server device; and

5 demasquerading a second wireline network message including said destination address containing said network service address to create said second wireline originated message including said destination address containing said network service address;

wherein the program step adding said network route for said wireless interface on said server is further comprised of the program steps of:

10 routing said first wireline destined message at said wireless interface based upon said network route for said server device with said network service address to create a first wireline network destined message including said first wireline address; and

15 routing a second wireline originated message including a destination containing said network service address to said server device based upon said network route for said server device with said network service address to create said second wireless destined message to said wireless client.

20 34. The wireless router of Claim 31,

wherein said wireless interface supports a message passing communications protocol in communicating with said wireless client.

35. The wireless router of Claim 34,

25 wherein said wireless transceiver further supports at least a layer two messaging protocol in communicating with said wireless client.

36. The wireless router of Claim 35,  
wherein said wireless interface further supports at least the IEEE  
802.11b messaging protocol standard in communicating with said wireless  
5 client.

37. The wireless router of Claim 35,  
wherein said wireless interface further supports at least the IEEE  
802.11a messaging protocol standard in communicating with said wireless  
10 client.

38. The wireless router of Claim 35,  
wherein said wireless interface further supports at least a layer three  
messaging protocol in communicating with said wireless client including said  
15 server supporting layer three datagrams.

39. The wireless router of Claim 38,  
wherein said wireless interface further supports a messaging protocol  
compatible with WAP in communicating with said wireless client.

20  
40. The wireless router of Claim 31,  
wherein said bus coupling includes at least a member of the bus  
coupling collection comprising a PCI bus coupling, a Compact PCI bus  
coupling, and an ISA bus coupling.

25  
41. The wireless router of Claim 31,

wherein said interface coupling includes at least one member of the interface coupling collection comprising a USB interface, an Ethernet interface, a fiber optic interface, an ATM interface, a STM interface, and a modem interface.

5

42. The wireless router of Claim 41,

wherein said Ethernet interface includes at least a member of the collection comprising a 1-Base T Ethernet interface, a 10-Base T Ethernet interface, a 100-Base T Ethernet interface, and a gigabit Ethernet interface.

10

43. The wireless router of Claim 41,

wherein said fiber optic interface includes at least a member of the collection comprising a fiber channel compliant interface, an interface to a Time Division Multiplexing fiber optic network, an interface to a photonic switch fiber optic network, an interface to an optical subcarrier multiplexed fiber optic network and an interface to Wavelength Division Mutliplexed fiber optic network.

15

44. A wireless router supporting communications between a wireless client  
20 and a wireline network comprising:

    said wireline network coupled to a server via a wireline communications port;

    a wireless interface coupled to said server by a member of a wireless coupling collection and possessing a wireless transceiver;

wherein said wireless coupling collection is comprised of a bus coupling between said wireless interface and said server, and an interface coupling between said wireless interface and said server;

5        wherein said bus coupling includes at least a member of the bus coupling collection comprising a PCI bus coupling, a Compact PCI bus coupling, and an ISA bus coupling;

10      wherein said interface coupling includes at least one member of the interface coupling collection comprising a USB interface, an Ethernet interface, a fiber optic interface, an ATM interface, a STM interface, and a modem interface;

15      wherein said Ethernet interface includes at least a member of the collection comprising a 1-Base T Ethernet interface, a 10-Base T Ethernet interface, a 100-Base T Ethernet interface, and a gigabit Ethernet interface;

20      wherein said fiber optic interface includes at least a member of the collection comprising a fiber channel compliant interface, an interface to a Time Division Multiplexing fiber optic network, an interface to a photonic switch fiber optic network, an interface to an optical subcarrier multiplexed fiber optic network and an interface to Wavelength Division Mutliplexed fiber optic network;

25      wherein said server is comprised of:

      a means for coupling said wireless interface to said wireline network via said wireline communications port as a server device with a network service address;

      a means for enabling address translation on said server to include said server device with said network service address;

a means for adding a network route for said wireless interface on said server for said server device with said network service address; and

a means for making said wireless interface available to at least one wireless client communicating via said wireless coupling as a gateway to  
5 communicate on said wireline network;

a means for a wireless client communicating via said wireless coupling based upon a login protocol accessing a client authorization list to create an authorized client; and

a means for said authorized client communicating via said wireless  
10 coupling using said network route to communicate with said wireline network;

wherein said means for making said wireless interface available to said wireless client is further comprised of:

a means for said wireless transceiver receiving a first message including a destination from said wireless client to create a first received message including said received destination at said wireless  
15 transceiver;

a means for said wireless transceiver transmitting a second wireless destined message to said wireless client;

a means for transmitting said first wireline network destined message including said wireline address via said wireline communications port; and  
20

a means for receiving a second wireline network message including a destination containing said network service address to create a second wireline network message including said destination containing said network service address to said server device;  
25

wherein said means for enabling address translation on said server is further comprised of:

5            a means for masquerading said first received message including said received destination to create a first wireline destined message including a first wireline address at said server device; and

10            a means for demasquerading a second wireline network message including said destination address containing said network service address to create said second wireline originated message including said destination address containing said network service address;

15            wherein said means for adding said network route for said wireless interface on said server is further comprised of:

20            a means for routing said first wireline destined message at said wireless interface based upon said network route for said server device with said network service address to create a first wireline network destined message including said first wireline address; and

25            a means for routing a second wireline originated message including a destination containing said network service address to said server device based upon said network route for said server device with said network service address to create said second wireless destined message to said wireless client;

              wherein said wireless transceiver further supports at least the IEEE 802.11b messaging protocol standard in communicating with said wireless client.

25

45.        The wireless router of Claim 44,

wherein said wireless interface further supports at least the IEEE 802.11a messaging protocol standard in communicating with said wireless client.

5        46. The wireless router of Claim 44,

      wherein said wireless interface further supports at least a layer three messaging protocol in communicating with said wireless client including said server supporting layer three datagrams.

10      47. The wireless router of Claim 46,

      wherein said wireless interface further supports a messaging protocol compatible with WAP in communicating with said wireless client.

15      48. The method of Claim 44,

      wherein said means for enabling address translation on said server is further comprised of at least one member of the collection comprising:

          a means for enabling address translation on said server to include said server device with said network service address by use of a static addressing scheme on said wireline network;

20        a means for enabling address translation on said server to include said server device with said network service address by use of a dynamic addressing scheme on said wireline network;

          a means for translating said wireless interface address to an external wireline address;

25        a means for presenting said wireless interface address as said external wireline address;

a means for registering said wireless interface address as said external wireline address; and

a means for registering said wireless interface address as said external wireline address to a dynamic DNS service.

5

49. A method of producing a wireless router from a server comprising the steps of:

coupling said wireless interface to said server using a member of a wireless coupling collection;

10 enabling network address translation on said server;

adding a network route for said wireless interface on said server to create a wireless interface address;

making said wireless interface address a default-route gateway for a wireless user communicating via said wireless interface; and

15 running a host configuration protocol on said wireless interface by said server;

wherein said wireline network is coupled to a server via a wireline communications port;

wherein said wireless coupling collection is comprised of a bus 20 coupling between said wireless interface and said computer, and an interface coupling between said wireless interface and said computer;

wherein said bus coupling includes at least a member of the bus coupling collection comprising a PCI bus coupling, a Compact PCI bus coupling, and an ISA bus coupling;

25 wherein said interface coupling includes at least one member of the interface coupling collection comprising a USB interface, an Ethernet

PCT/US2003/033250

interface, a fiber optic interface, an ATM interface, a STM interface, and a modem interface;

wherein said Ethernet interface includes at least a member of the collection comprising a 1-Base T Ethernet interface, a 10-Base T Ethernet interface, a 100-Base T Ethernet interface, and a gigabit Ethernet interface;

wherein said fiber optic interface includes at least a member of the collection comprising an fiber channel compliant interface, an interface to a Time Division Multiplexing fiber optic network, an interface to a photonic switch fiber optic network, an interface to an optical subcarrier multiplexed fiber optic network and an interface to Wavelength Division Mutliplexed fiber optic network.

50. The method of Claim 49,

wherein said wireless interface is a PCMCIA wireless LAN PC card;

wherein the step coupling said wireless interface is further comprised of the steps of:

inserting a PCMCIA Card Reader into a PCI/ISA slot coupled with said server; and

inserting said PCMCIA wireless LAN PC card into said Card Reader.

20

51. The method of Claim 49,

wherein the step coupling said wireless interface is comprised of at least one member of the collection comprising the steps of:

coupling said wireless interface to said server using said bus coupling;

25 and

coupling said wireless interface to said server using said interface coupling.

52. The method of Claim 51,

5 wherein the step coupling said wireless interface to said server using said bus coupling is further comprised of at least one member of the collection comprising the steps of:

coupling said wireless interface to said server using said PCI bus;

10 coupling said wireless interface to said server using said Compact PCI bus; and

coupling said wireless interface to said server using said ISA bus.

53. The method of Claim 51,

15 wherein the step coupling said wireless interface to said server using said interface coupling is further comprised of at least one member of the collection comprising the steps of:

coupling said wireless interface to said server using said USB interface;

20 coupling said wireless interface to said server using said Ethernet interface;

coupling said wireless interface to said server using said fiber optic interface;

coupling said wireless interface to said server using said ATM interface;

25 coupling said wireless interface to said server using said STM interface; and

coupling said wireless interface to said server using said modem interface.

54. The method of Claim 51,

5 wherein the step coupling said wireless interface to said server using said Ethernet interface is further comprised of at least one member of the collection comprising the steps of:

coupling said wireless interface to said server using a 1-Base T Ethernet interface;

10 coupling said wireless interface to said server using a 10-Base T Ethernet interface;

coupling said wireless interface to said server using a 100-Base T Ethernet interface;

15 coupling said wireless interface to said server using a gigabit Ethernet interface.

55. The method of Claim 51,

wherein the step coupling said wireless interface to said server using said fiber optic interface is further comprised of at least a member of the 20 collection comprising the steps of:

coupling said wireless interface to said server using a fiber channel compliant interface;

coupling said wireless interface to said server using an interface to a Time Division Multiplexing fiber optic network;

25 coupling said wireless interface to said server using an interface to a photonic switch fiber optic network;

(b) (5) AIA  
coupling said wireless interface to said server using an interface to an optical subcarrier multiplexed fiber optic network; and

coupling said wireless interface to said server using an interface to a Wavelength Division Multiplexed fiber optic network.

5

56. The method of Claim 49,

wherein the step enabling address translation on said server is further comprised of at least one member of the collection comprising the steps of:

enabling address translation on said server to include said server device with said network service address by use of a static addressing scheme on said wireline network;

enabling address translation on said server to include said server device with said network service address by use of a dynamic addressing scheme on said wireline network;

15 translating said wireless interface address to an external wireline address;

presenting said wireless interface address as said external wireline address;

registering said wireless interface address as said external wireline address; and

registering said wireless interface address as said external wireline address to a dynamic DNS service.

57. The method of Claim 49,

25 wherein the step running said host configuration protocol is further comprised of a member of the collection comprising the steps of

running a version of DHCP on said wireless interface by said server;

running a version of BOOTP on said wireless interface by said server;  
running a version of Appletalk on said wireless interface by said server;  
and

running a version of VLAN on said wireless interface by said server.

5

58. A wireless router supporting communications between a wireless client  
and a wireline network comprising:

a wireless interface coupled to a server and possessing a wireless  
transceiver;

10       said wireline network coupled to said server via a wireline  
communications port;

at least one computer operating said server based upon a program  
system comprising program steps residing in memory accessibly coupled with  
said computer;

15       wherein said program system is comprised of the program steps of:

coupling said wireless interface to said wireline network via said  
wireline communications port as a server device with a network service  
address;

enabling address translation on said server to include said server  
20 device with said network service address;

adding a network route for said wireless interface on said server for  
said server device with said network service address; and

making said wireless interface available to at least one wireless client  
communicating via said wireless coupling as a gateway to communicate on  
25 said wireline network

wherein said server is a member of the Sun Qube product collection comprising at least a Qube 3.

59. The wireless router of Claim 58,

5 wherein said wireless interface is a radio network interface.

60. A method of providing communication between a wireless transceiver and a wireline network, wherein a wireless interface possessing said wireless transceiver is coupled to a server further coupled via a wireline communications port to said wireline network, comprising the steps of:

10 coupling said wireless interface to said wireline network via said wireline communications port as a server device with a network service address;

15 enabling address translation on said server to include said server device with said network service address;

adding a network route for said wireless interface on said server for said server device with said network service address; and

20 making said wireless interface available to at least one wireless client communicating via said wireless coupling as a gateway to communicate on said wireline network;

wherein said server is a member of a Sun Qube product collection comprising at least a Qube 3.

61. The method of Claim 60,

25 wherein said wireless interface is a radio network interface.